IN THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made.
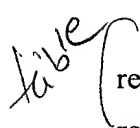
1.   (Currently amended) A configurable telecommunications system, comprising:

an interface device having a plurality of telephony resources and operable to maintain a local protocol database comprising a plurality of protocol modules, to identify, for each of the telephony resources, a protocol module required to process signals received by a selected one of the resources, the telephony resource, to determine, for each of the identified protocol modules, whether the identified protocol module is valid in the local protocol database, to request each of the protocol module required to process the signals modules not determined valid from a system controller, to receive the requested protocol module modules from the system controller, and to store the requested protocol module modules in a local the local protocol database; and

the system controller operable to maintain a system protocol database storing a plurality of master protocol modules, to receive the request requests from the interface device requesting selected ones of the master protocol modules, and to communicate the requested master protocol module modules from the system protocol database to the interface device.

2.   (Original) The system of Claim 1, wherein the local protocol database stores integrated services digital network (ISDN) protocol modules.

3.   (Original) The system of Claim 1, wherein the local protocol database stores a protocol module for each of the telephony resources.

4.   (Original) The system of Claim 1, wherein the protocol module comprises a state table indicating an action based upon a current state and a signal type.

5.   (Original) The system of Claim 1, wherein the interface device maintains resource information indicating a required protocol module for each of the telephony resources and a current state for each of the telephony resources.

6.   (Original)   The system of Claim 1, wherein the interface device is further operable to process signals received using a core signal handler in combination with a selected protocol module from the local protocol database.

7.   (Currently amended) A configurable telecommunications device, comprising:

an interface having a plurality of telephony resources;

a memory storing a protocol database having a plurality of protocol modules; and

a central processing unit (CPU) operable to:

identify, for each of the telephony resources, a protocol module required ~~by a selected one of the resources~~ to process telephony signals received by the telephony resource;

determine, for each of the identified protocol modules, whether the identified protocol module is ~~stored in the protocol database~~ valid in the protocol database;

request ~~the protocol module~~ each of the protocol modules not determined valid from a remote ~~device if the protocol module is not stored in the protocol database;~~ device;

receive the requested protocol ~~module~~ modules from the remote device; and

store the requested protocol ~~module~~ modules in the protocol database.

8.   (Original) The telecommunications device of Claim 7, wherein the protocol modules comprise integrated services digital network (ISDN) communications protocols.

9.   (Original) The telecommunications device of Claim 7, wherein each protocol module in the protocol database comprises a state table indicating responses to signals based on a signal type and a current state.

10.   (Original) The telecommunications device of Claim 7, wherein:

the memory further stores a core signal handler performing functions common for all signals received from the resources; and

each protocol module in the protocol database operates with the core signal handler to process a specific signaling protocol.

11.   (Original) The telecommunications device of Claim 7, wherein the memory further stores resource information indicating a protocol module required to process signals for each of the resources and a current state for each of the resources.

12.   (Original) The telecommunications device of Claim 7, wherein the controller is further operable to remove an unused protocol module from the protocol database, wherein the unused protocol module is not required by any of the resources.

13.   (Original) The telecommunications device of Claim 7, wherein the controller is further operable to:

process signals associated with a communication session using a first version of a specific protocol module stored in the protocol database;

receive an updated version of the specific protocol module during the communication session;

store the updated version of the specific protocol in the protocol database;

complete processing of the communication session using the first version of the specific protocol module; and

remove the first version of the specific protocol module after processing of the communication session is complete.

14.   (Currently amended) A method for configuring a telecommunications device, comprising:

maintaining a local protocol database comprising a plurality of protocol modules;

identifying, for each of a plurality of telephony resources, a protocol module required to process signals ~~for a telephony resource of the device;~~ received by the telephony resource;

determining, for each of the identified protocol modules, whether the identified protocol module is ~~stored in a local~~ valid in the local protocol database;

requesting each of the protocol ~~module~~ modules not determined valid from a remote protocol ~~database if the protocol module is not stored in the local protocol database;~~ database;

receiving the requested protocol ~~module;~~ modules; and

storing the requested protocol ~~module~~ modules in the local protocol database.

15.   (Currently amended) The method of Claim 14, wherein ~~the~~ each protocol module comprises a state table indicating responses to integrated services digital network (ISDN) signals.

16.   (Currently amended) The method of Claim 14, wherein ~~the~~ each protocol module comprises a state table indicating responses to signals based on a signal type and a current state of the resource.

17.   (Original) The method of Claim 14, wherein the local protocol database stores a plurality of protocol modules corresponding to a plurality of telephony resources of the device.

18.   (Original) The method of Claim 14, further comprising, for each telephony resource, processing signals received by the resource using a core signal handler to access the required protocol based on signal type of a signal received by the resource and a current state of the resource.

19.   (Currently amended) The method of Claim 14, wherein the remote protocol database stores a plurality of master protocol modules that may be requested by the telecommunications device.

20.   (Currently amended)   A communications device for supporting communications using a plurality of integrated services digital network (ISDN) protocols, comprising:

an ISDN interface having a plurality of resources receiving ISDN signals;

a memory storing a local protocol database and resource information describing the resources, wherein the local protocol database comprises a plurality of protocol modules; and

a core signal handler operable to:

identify, for each of the resources, a protocol module required to process signals received by the resource;

determine, for each of the identified protocol modules, whether the identified protocol module is valid in the local protocol database;

request each of the protocol modules not determined valid from a remote protocol database;

receive the requested protocol modules from the remote protocol database;

store the requested protocol modules in the local protocol database;

receive a signal from a selected one of the resources;

access the resource information describing the selected one of the resources;

determine a protocol module required to process the signal based on the accessed resource information; and

process the received signal using the required protocol module.

21.   (Original)   The communications device of Claim 20, wherein resource information indicates a selected one of the protocol modules required to process ISDN signals for each of the resources.

22.   (Original) The communications device of Claim 20, wherein the protocol modules comprise state tables indicating responses to signals based on a signal type and a current state of a resource.

23.   (Original) The communications device of Claim 20, wherein the core signal handler is further operable to:

determine a signal type of the signal;

determine a current state of the selected one of the resources; and

access the required protocol module to determine an action based on the signal type and the current state.

24.   (Currently amended) The communications device of Claim 20, wherein the core signal handler is further operable to:

determine that the required protocol module is not stored in the local protocol database;

request the required protocol module from a remote the remote protocol database;

receive the required protocol module from the remote protocol database; and

store the required protocol module in the local protocol database.

25.　　(Currently amended) A method for processing a telephony signal, comprising:

maintaining a local protocol database comprising a plurality of protocol modules;

identifying, for each of a plurality of telephony resources, a protocol module required to process signals received by the resource;

determining, for each of the identified protocol modules, whether the identified protocol module is valid in the local protocol database;

requesting each of the protocol modules not determined valid from a remote protocol database;

receiving the requested protocol modules from the remote protocol database;

storing the requested protocol modules in the local protocol database;

receiving the signal from a telephony resource; one of the telephony resources;

determining a signal type for the signal using a core signal handler;

accessing resource information associated with the resource to determine current state a current state of the telephony resource;

selecting one of a plurality of the protocol modules for processing the signal; and

processing the signal using the selected protocol module based on the signal type and the current state.

26.　　(Currently amended) The method of Claim 20 Claim 25, wherein the signal comprises an integrated services digital network (ISDN) signal.

27.　　(Currently amended) The method of Claim 20 Claim 25, wherein the core signal handler comprises software providing signal handling functions common for all types of ISDN signaling protocols.

28.　　(Currently amended) The method of Claim 20 Claim 25, wherein the signal type indicates an action requested by the signal.

29.　　(Currently amended) The method of Claim 20 Claim 25, wherein the signal type indicates a selected one of alerting, call proceeding, connect, connect acknowledge, setup, setup acknowledge, suspend, suspend acknowledge, suspend reject, resume, resume acknowledge, resume reject, disconnect, release, release complete, status inquiry, and status.

30.   (Currently amended) The method of ~~Claim 20~~ Claim 25, wherein the resource information indicates a required protocol module and a current state for each of a plurality of resources.

31.   (Currently amended) The method of ~~Claim 20~~ Claim 25, wherein the selected protocol module comprises a state table indicating a plurality of actions indexed by signal types and resource states.   .

32.   (Original) The method of Claim 31, wherein processing the signal comprises:
accessing the state table to determine an action based on the signal type and the current state;
performing the action; and
updating the current state of the resource.

33.   (Currently amended) Software for processing a telephony signal, the software embodied in a computer readable medium and operable to:

maintain a local protocol database comprising a plurality of protocol modules;

identify, for each of a plurality of telephony resources, a protocol module required to process signals received by the resource;

determine, for each of the identified protocol modules, whether the identified protocol module is valid in the local protocol database;

request each of the protocol modules not determined valid from a remote protocol database;

receive the requested protocol modules from the remote protocol database;

store the requested protocol modules in the local protocol database;

receive the signal from a telephony resource; one of the telephony resources;

determine a signal type for the signal using a core signal handler;

access resource information associated with the resource to determine current state a current state of the telephony resource;

select one of a plurality of the protocol modules for processing the signal; and

process the signal using the selected protocol module based on the signal type and the current state.

34.   (Original)   The software of Claim 33, wherein the signal comprises an integrated services digital network (ISDN) signal.

35.   (Original)   The software of Claim 33, wherein the core signal handler comprises software providing signal handling functions common for all types of ISDN signaling protocols.

36.   (Original)   The software of Claim 33, wherein the signal type indicates an action requested by the signal.

37.   (Original)   The software of Claim 33, wherein the signal type indicates a selected one of alerting, call proceeding, connect, connect acknowledge, setup, setup

acknowledge, suspend, suspend acknowledge, suspend reject, resume, resume acknowledge, resume reject, disconnect, release, release complete, status enquiry, and status.

38.   (Original)   The software of Claim 33, wherein the resource information indicates a required protocol module and a current state for each of a plurality of resources.

39.   (Currently amended) The software of Claim 33, wherein the selected protocol module comprises a state table indicating a plurality of actions indexed by signal types and resource states.

40.   (Original)   The software of Claim 39, wherein processing the signal comprises:

accessing the state table to determine an action based on the signal type and the current state;

performing the action; and

updating the current state of the resource.

41.   (Currently amended) Software for configuring a telecommunications device, the software embodied in a computer readable medium and operable to:

maintain a local protocol database comprising a plurality of protocol modules;

identify, for each of a plurality of telephony resources, a protocol module required to process signals ~~for a telephony resource of the device;~~ received by the telephony resource;

determine, for each of the identified protocol modules, whether the identified protocol module is ~~stored in a local protocol database;~~ valid in the protocol database;

request ~~the protocol module~~ each of the protocol modules not determined valid from a remote protocol ~~database if the protocol module is not stored in the local protocol database;~~ database;

receive the requested protocol ~~module; and~~ modules from the remote protocol database; and

store the requested protocol ~~module~~ modules in the local protocol database.

42.   (Original) The software of Claim 41, wherein ~~the protocol module~~ each of the protocol modules comprises a state table indicating responses to integrated services digital network (ISDN) signals.

43.   (Original) The software of Claim 41, wherein ~~the protocol module~~ each of the protocol modules comprises a state table indicating responses to signals based on a signal type and a current state of the resource.

44.   (Original) The software of Claim 41, wherein the local protocol database stores a plurality of protocol modules corresponding to a plurality of telephony resources of the device.

45.   (Original) The software of Claim 41, further operable to process signals received by the resource using a core signal handler to access the required protocol based on signal type of a signal received by the resource and a current state of the resource.

46.   (Currently amended) The software of Claim 41, wherein the remote protocol database stores a plurality of <u>master</u> protocol modules that may be requested by the telecommunications device.

47.   (Currently amended)   A communications device for supporting communications using a plurality of integrated services digital network (ISDN) protocols, comprising:

means for maintaining a local protocol database comprising a plurality of protocol modules;

means for identifying, for each of a plurality of telephony resources, a protocol module required to process signals for a telephony resource of the device; received by the telephony resource;

means for determining, for each of the identified protocol modules, whether the identified protocol module is stored in a local valid in the local protocol database;

means for requesting each of the protocol module modules not determined valid from a remote protocol database if the protocol module is not stored in the local protocol database; database;

means for receiving the requested protocol module; modules; and

means for storing the requested protocol module modules in the local protocol database.

48.   (Original)   The communications device of Claim 47, wherein the protocol module each of the protocol modules comprises a state table indicating responses to integrated services digital network (ISDN) signals.

49.   (Original)   The communications device of Claim 47, wherein the protocol module each of the protocol modules comprises a state table indicating responses to signals based on a signal type and a current state of the resource.

50.   (Original)   The communications device of Claim 47, wherein the local protocol database stores a plurality of protocol modules corresponding to a plurality of telephony resources of the device.

51.   (Currently amended) The communications device of Claim 47, wherein the remote protocol database stores a plurality of <u>master</u> protocol modules that may be requested by the communications device.

52.   (New) The system of Claim 1, wherein the interface device is further operable to accept a new telephony resource, to detect a presence of the new telephony resource, to request a protocol module associated with the new telephony resource from the system controller in response to detecting the presence of the new telephony resource, to receive the requested protocol module associated with the new telephony resource from the system controller, and to store the requested protocol module associated with the new telephony resource in the local protocol database.

53.   (New) The telecommunications device of Claim 7, wherein the CPU is further operable to detect a presence of a new telephony resource, to request a protocol module associated with the new telephony resource from the system controller in response to detecting the presence of the new telephony resource, to receive the requested protocol module associated with the new telephony resource from the system controller, and to store the requested protocol module associated with the new telephony resource in the local protocol database.